LAND USE

HISTORIC AND RECENT LAND USE

The <u>current land cover</u> of the James River Basin is 30% hardwood forest, 63% agriculture (mostly pasture with some row cropping), and 7% urban (industrial, commercial, and residential areas) (MDNR 1995a).

The hardwood forest consists of second growth oaks. The oak/hickory association is common on ridges, uplands, and uphill slopes on drier, more acidic soils. Some of the other trees associated with the oak/hickory complex include blackjack oak, black oak, white oak, post oak, black hickory, and shagbark hickory (EPA 1981).

Miles (1990) designates eastern red cedar forest in Barry, Christian, Webster, and Stone counties as covering 10.4, 2.7, 11.4, and 11.2 thousand acres, respectively. These counties also have 16.1, 10.0, 0.0, and 16.4 thousand acres of cedar/hardwood mixed forest, respectively. The remainder of the 201.7, 143.5, 118.4, and 125.1 thousand acres, respectively, consists of hardwood forest stands (oak/hickory). As mentioned previously, these data are for entire counties, whereas, the James River Basin lies in only a portion of each of these counties. However, trends in the watershed can be inferred from these data.

Historically, the James River Basin consisted of oak/hickory forest dominated by oaks, as well as tall grass prairie (Rafferty 1970). The prairie consisted primarily of big blue stem and other prairie grasses as well as herbs such as dittany oats grass, pussy toes, lespedeza, and cinquefoil (EPA 1981). Eastern red cedar was also found on limestone glades (Rafferty 1970). When the settlers arrived in the area, the forest was located on the slopes of stream valleys and hills, while prairie habitat was found on the level uplands (Rafferty 1970).

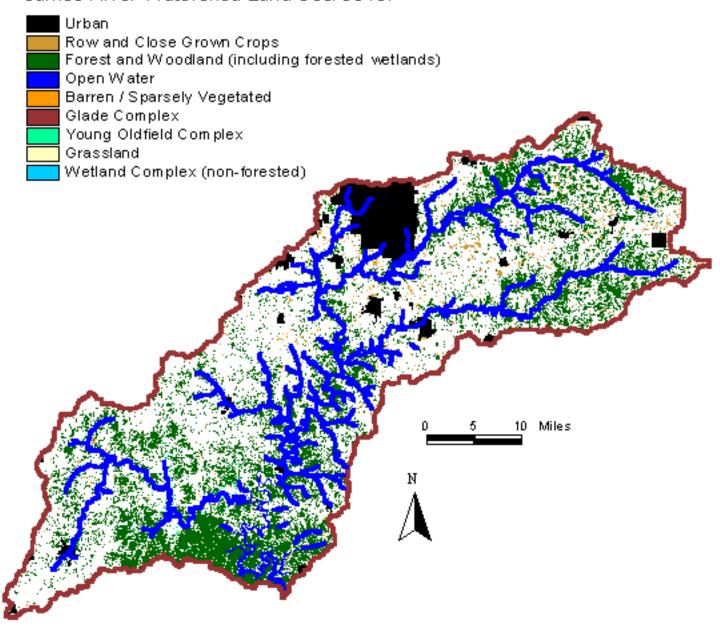
There are several reasons for the reduction in the original forest. First, as the population of the area began to increase, lumber was needed to construct homes and other buildings. Timber in the valley bottoms and on the lower slopes was harvested to support the growth in population. The development of the railroad also led to an increasing demand for lumber for railroad ties (Rafferty 1970).

Timber in the basin was also cut to clear pasture and crop land when the demand for more than subsistence farming increased (Rafferty 1970). Most of the timber that the settlers left unharvested was located on the steep slopes and in the riparian corridors because of the difficulty and relative inaccessibility of these areas to harvest (Rafferty 1970).

The prairie habitat of the region has almost disappeared due to the increase in population and related land use changes over the years. Prairie grasses have been replaced with other forage such as fescue for livestock grazing. The prairie was also plowed in order to plant rowcrops and to keep up with the increasing agricultural demand brought on by an increasing population (Rafferty 1970).

Limestone glade habitat was common in the area's early history. However, the glades were also cleared and used for livestock grazing when the settlers arrived. Orchards (mostly apples and peaches) also became more prevalent in the early 1900's. This was also brought about by the increasing population and growing demand for food (Rafferty 1970).

James River Watershed Land Use/Cover



The area now has cleared glades and fewer orchards. The remaining forest lies along riparian areas and in small stands. The virgin oak/hickory forest is almost gone. Most of the prairie has been lost to cattle grazing and agriculture (Rafferty 1970).

SOIL CONSERVATION PROJECTS

Goff Creek (Christian County) and Dry Crane Creek (Stone County) have active Special Area Land Treatment (SALT) projects.

PUBLIC AREAS

- The Missouri Department of Conservation (MDC) access points (Figures 3A-D) are:
- Joe Crighton Access (James River)---3 miles southeast of Springfield off Highway D in Greene County.
- Southwood Access (James River, Lake Springfield)---West of Highway 65 bridge, Greene County.
- Clay Henshaw Memorial Access (James River, Lake Springfield)---Evans Road off Highway 65 south of Springfield, Greene County.
- Tailwaters Access (James River)---Evans Road off Highway 65 south of Springfield below Lake Springfield Dam, Greene County.
- Delaware Town Access (James River)---5 miles west of Nixa off Highway 14, Christian County.
- Shelvin Rock Access (James River)---5 miles southwest of Nixa off Highway M, Christian County.
- Hooten Town Access (James River)---6 miles east of Hurley off Highway U, Stone County.
- H. L. Kerr Access (James River)---2 miles northeast of Galena off Highway 176, Stone County.
- Ralph Cox Memorial Access (James River)---Highway 13 bridge near Galena, Stone County.
- Lower Flat Creek Access (Flat Creek)---3 miles east of Highway 39 and Highway EE junction, Barry County.
- Stubblefield Access (Flat Creek)---5 miles northwest of Highway 39 and Highway 248 junction, Barry County.
- The Department also manages (Figures 3A-D) the Springfield Conservation Nature Center located at Business Loop 65 in southeast Springfield, Wire Road Conservation Area located northwest of Crane, Compton Hollow Conservation Area south of Northview, Holland Conservation Area located north of Ponce de Leon, Jenkins Towersite south of Aurora, Seymour Towersite north of Seymour, and Jessie Hollow Conservation Area west of Reeds Spring (MDC 1995a).
- The National Park Service owns Wilson's Creek National Battlefield located southwest of Springfield near Battlefield, Missouri.
- A small portion of the Mark Twain National Forest lies within the basin and is located in the east central portion of Barry County, north of Highway 76.

CORPS OF ENGINEERS JURISDICTION

The entire James River Basin is under the jurisdiction of the Little Rock District of the U.S. Army Corps of Engineers (COE). Permits issued under Section 404 of the federal Clean Water Act are required to conduct many instream activities. Applications for Section 404 permits should be directed to the Little Rock office:

Little Rock District Phone: (501)324-5295

Corps of Engineers

P.O. Box 867

Little Rock, AR 72203-0867

Current listings of Section 404 permits are available from the Little Rock District office.